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Corrective Action Monitoring Plan
Prince Edward County Sanitary Landfill
Permit No. 584

LAST REVISED NOVEMBER 2022
PROJECT NO. 222313.00/PHASE 05

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DRAWING

1.0 INTRODUCTION/REGULATORY REQUIREMENTS

As per Section 9VAC20-81-260.D.1, the facility shall submit a CAP and related CAMP consistent with the findings as presented in the Assessment of Corrective Measures (ACM).

The CAMP must describe the function of each network, the frequency of groundwater monitoring, and the list of the constituents to be sampled. The compliance network must at a minimum meet the criteria of the associated monitoring program as required under the VSWMR while the performance and sentinel networks must meet the criteria of the corrective action regulations.

The corrective action groundwater monitoring program at the facility is capable of determining the impact to groundwater quality of the uppermost aquifer, the horizontal and vertical extent of the plume and can be used to demonstrate the effectiveness of the implemented corrective action remedy.

The purpose of the CAMP is to outline the groundwater monitoring components and requirements of the facility during corrective action. The CAMP is a supplement to the existing GMP. The CAMP does not replace the GMP. This CAMP details the facility's corrective action monitoring well networks and sampling and analysis procedures to be undertaken during groundwater monitoring events. The CAMP describes the corrective action groundwater monitoring network, constituent analysis, the statistical evaluation of the laboratory analytical results, and reporting procedures. The GMP describes the general site procedures for detection and assessment monitoring, the overall detail pertaining to the preservation and shipment of groundwater samples, the chain-of-custody and the Quality Assurance/Quality Control (QA/QC) requirements for the facility.

This revised CAMP updates the facility constituents of concern (COCs) and modifies the corrective action monitoring network in response to DEQ's 1st Technical Review Letter for the 1st Technical Review of the 4th and 5th Corrective Action Site Evaluations dated October 5, 2021; and the Interim Measures Activity Workplan dated December 21, 2021, and approved by DEQ on June 7, 2022. The revisions include the following:

- Unassociated performance well NE-3, performance well NE-1S, and sentinel well NE-8 will be removed from the corrective action monitoring network;
- Shift the sampling location of S-1 slightly further downstream to better intercept the flow path from MW-13;
- Sentinel well NE-9 will be included as a performance well;
- Surface water monitoring point S-2 will be included as a sentinel monitoring location for NE-6;
- Beginning in 2022, all wells will be sampled utilizing the same low-flow method;
- Compliance well P-3R will be added to the corrective action monitoring network;
- MW-16 will be included as a performance well for P-3R; and,
- Surface water monitoring point S-1 will be included as a sentinel monitoring location for P-3R.

2.0 CORRECTIVE ACTION MONITORING WELL NETWORK

As per 9VAC20-81-250.A.3.a, a groundwater monitoring system shall be installed consisting of a sufficient number of monitoring wells at appropriate locations and depths, capable of yielding sufficient quantities of groundwater for sampling and analysis purposes for the uppermost aquifer.

The location, spacing and depths of corrective action monitoring wells included in the facility's network have been determined utilizing DEQ and EPA guidance documents, DEQ correspondence and approvals and on site specific technical information including:

- Physical site limitations
- Topography
- Depth to groundwater
- The chemical characteristics of the COCs
- The calculated groundwater flow rate and direction within the uppermost aquifer including any seasonal and temporal fluctuations in groundwater flow

The Corrective Action Plan, provided as Drawing 1, illustrates the monitoring well locations at the facility.

2.1 Corrective Action Groundwater Monitoring Network

To meet the Monitored Natural Attenuation (MNA) and Long-Term Performance (LTP) monitoring requirements, compliance wells have been paired with performance and sentinel wells.

Performance wells are installed to evaluate the natural attenuation of the COCs or otherwise prove the remedial technology on site is performing as designed. Performance wells are installed within the plume of impacted groundwater at locations appropriate for the remedy selected. Sentinel wells are installed to monitor plume movement towards receptors at property boundaries.

The table below illustrates the Corrective Action Monitoring well network:

Corrective Action Monitoring Well Network

GPS Exceeding Compliance Well	Performance Well	Sentinel	Interim Measures
MW-5	M-1, P-2	S-2	S-3
MW-13	NE-9	S-1	S-3
NE-6	NE-D, NE-4, NE-9	S-2	S-3
P-3R	MW-16	S-1	S-3

2.2 Sampling Constituents and Frequency

The GMP describes the procedures and techniques for sample collection, preservation and shipment, analytical procedures, and chain-of-custody and quality control. The GMP describes the procedures that will be used to evaluate the analytical results of the groundwater sampling during

the Detection and Assessment monitoring programs (DEQ 2003). Details pertaining to sampling and analysis as it applies to the corrective action program that differ from the GMP are discussed below.

2.2.1 Sampling Constituents

The facility will continue monitoring under the Assessment Monitoring Program with a Detection Monitoring Subset. Compliance wells in the Assessment Monitoring Program will be analyzed for Table 3.1 Column A and Column B as outlined in the GMP. Compliance wells in the Detection Monitoring Subset will be analyzed for Table 3.1 Column A as outlined in the GMP.

During the implementation of the Assessment Monitoring Programs at the facility, COCs were identified for the facility. Corrective action performance and sentinel wells will be sampled for COCs and daughter products.

The current COCs include:

- Cobalt
- Benzene
- 1,1-Dichloroethane (1,1-DCA)
- Tetrachloroethene (PCE)
- Trichloroethene (TCE)
- Vinyl Chloride (VC)

Daughter Products of the organic COCs will be analyzed to monitor the degradation of the constituents. The table below illustrates the daughter products of the organic COCs:

Organic COC Daughter Products

1,1-DCA » Chloroethane » Ethane
PCE » TCE » 1,2-DCE* » VC » Ethene
TCE » 1,2-DCE* » VC » Ethene
VC » Ethene

*1,2-DCE refers to cis-1,2-dichloroethene.

Daughter products to be included in the sampling regime in addition to the MNA parameters will include:

- Chloroethane
- cis-1,2-DCE
- Ethane
- Ethene
- TCE
- VC

Geochemical indicators provide a signature of degradation processes and assist in estimating the magnitude of the natural attenuation process. At a minimum, the performance wells will be monitored for the following MNA parameters:

Depleted Electron Acceptors	Metabolic By-Products	Miscellaneous
Dissolved Oxygen (DO)	Iron II (Ferrous Iron)	Oxidation Reduction Potential (ORP)
Nitrate	Methane	Total Organic Carbon (TOC)
Sulfate	Chloride	pH
	Alkalinity	Conductivity
		Temperature

Additionally, in those cases where GPS exceeding constituents are metals, the performance wells will be monitored for the following LTP monitoring parameters:

Electron Donors or Acceptors	Miscellaneous
DO	ORP
Nitrate	TOC
Sulfate	pH
Iron II (Ferrous Iron)	Conductivity
Iron III (Ferric Iron)	Temperature

2.2.2 Groundwater Sampling Frequency

To demonstrate the effectiveness of the natural attenuation process, a long term groundwater monitoring program has been implemented. The facility will continue monitoring groundwater quality under the Assessment Groundwater Monitoring Program with a Detection Monitoring Subset and will include the monitoring of MNA parameters. The facility groundwater monitoring schedule is outlined in the table below. All MNA wells will be compared to the upgradient / background MNA conditions as reported in M-3 and MW-12R.

Most statistical-trends or regression analysis requires a minimum of ten independent samples before a valid statistical conclusion can be reached. For the three year CASE study submission time frame, quarterly sampling is required for the first two years of the corrective action program in order to collect ten data points within three calendar years (DEQ 2004).

Permit No. 584 was amended in June 2006 to incorporate Corrective Action Permit Module XIV. The minimum ten sampling events have been met; therefore, the facility will monitor the MNA parameters on a semiannual basis.

Groundwater Monitoring Schedule

Well Network	MNA Parameters (& LTP Parameters, if applicable)	COC & Daughter Products
Compliance*	Semiannual	Semiannual
Performance	Semiannual	Semiannual
Sentinel	--	Semiannual

*Compliance wells with GPS exceedances will be monitored for MNA & LTP parameters.

2.2.3 Analytical Methods

The table below provides the bottleware and volume required to perform the analysis. Enthalpy Analytical, Inc. (Enthalpy) of Richmond, Virginia, is the current accredited laboratory. Enthalpy is certified by the Virginia Environmental Laboratory Accreditation Program (VELAP) for the constituents analyzed and reported during the monitoring events. The facility may run applicable analyses in the field using proper methods.

Analytical Sample Volume, Containers, Preservative and Hold Times

Parameter Sweep		Analytical Method	Volume	Container	Preservative	Hold Time
Table 3.1 Column A		EPA 8260	120mL	3 / 40mL vials	HCL / 4°C	14 days
		EPA 6010	500mL	1 Plastic	HNO_3	6 months
		EPA 6020	500mL	1 Plastic	HNO_3	6 months
MNA	Alkalinity	SM2320 or EPA 350.1	500mL	1 Plastic	4°C	14 days
	Chloride	SW-846 9056	250mL	1 Plastic	4°C	28 days
	Ethane Ethene Methane	RSK 175	120mL	3 / 40 mL Glass vials	HCL / 4°C	7 days
	Nitrate	SW-846 9056 IC	250mL (unpreserved)	2 Plastic	4°C	48 hours
	Sulfate	SW-846 9056 IC	250mL	1 Plastic	4°C	28 days
	Total Organic Carbon	SW9060	120mL	3 / 40 mL Amber Glass vials	H_2SO_4	28 days

Field Analysis Sample Methods/Techniques

Parameter	Technique/Equipment	Reported Unit
Conductivity	Meter	µS
Dissolved Oxygen	Meter	mg/L
Ferrous Iron	HACH kit/colorimeter	mg/L
Oxidation Reduction Potential	Meter	mV
pH	Meter	--
Temperature	Meter	°C

Additional equipment may be added or substituted as sampling technology improves or as the need arises upon modification of this plan. The proposed modifications must be submitted to and approved by DEQ.

3.0 SURFACE WATER SAMPLING PLAN

3.1 Purpose

The purpose of the Surface Water Sampling Plan (SWSP) is to describe the methods used to collect and process surface water samples and to assure that surface water sampling methods take into account the extent to which contamination, matrix effects, and measurement variability affect interpretation of chemical analysis of the surface water samples. The sampling methods, techniques and practices described herein are based on the procedures described in USGS Open File Reports 94-455 (Field Guide for Collecting and Processing Stream-water Samples for the National Water-quality Assessment Program), and 97-223 (Quality-control Design for Surface-water Sampling in the National Water-quality Assessment Program).

3.2 Drainage Pathways

Storm water from the property naturally drains towards unnamed tributaries of Buffalo Creek. On the east (downgradient) side of the former Permit No. 420 disposal area, the unnamed tributary has been dammed in order to act as a sediment pond for storm water control. The design and construction of the sediment pond predates current regulations prohibiting construction of basins in streams.

3.3 Surface Water Sampling Locations

Each sampling location has been designated a sample ID and a stake has been placed at each sampling point so that future samples can be collected from the same location. The sampling points have been staked in a location likely to intercept potential contamination. The GPS coordinates of the stream sampling points have been recorded and plotted on the facility base map as illustrated in Drawing 1.

Collection sites along the stream are positioned at areas where the stream channel is straight and flow is uniform. Caution has been exercised to ensure that samples are not obtained downstream of any bridge, stream confluence or point source that may affect the outcome of the sample. Each sampling procedure will begin at the upstream sampling station and work its way downstream.

The three surface water sampling points are numbered S-1, S-2, and S-3. Sample locations S-1 and S-2 are downgradient 'Plume Discharge Points' and S-3 is the downgradient Property Boundary Point. It is noted that the unnamed tributary to Buffalo Creek is intermittent and free flowing surface water is not anticipated to be found consistently at the S-1 location. When and if this is the case, sampling personnel shall relocate downstream to the first expression of surface water prior to tributary flow into the sediment pond, and collect S-1 from that location. Because the tributary headwaters are located crossgradient to downgradient of the landfill, no upstream sample collection point can be established.

3.4 Stream Characteristics and Measurements

3.4.1 Characteristics

The physical characteristics of the stream will be recorded in the logbook and will include depth, width, clarity, and estimated velocity.

3.4.2 Measurements

The following in-field stream readings will be recorded:

- Temperature (Water)
- Specific Conductance
- pH
- Dissolved Oxygen

Temperature

During each sampling event, the stream temperature will be measured. A change in temperature can affect gas solubility and density as well as the mixing of different water masses during seasonal variations. Depending on the temperature variability of the stream, one measurement will be taken if the stream depicts uniform variability, and multiple measurements will be taken to obtain a temperature mean on a stream with high variable temperature profiles.

Water temperature will be measured with an electronic, mercury free thermometer. Environmental regulations prohibit the use of thermometers containing mercury as an accidental spill would contaminate the water.

Specific Conductance

During each sampling event the specific conductance of the stream will be measured. Conductance measures the ability of water to carry an electric current, and specific conductance is that measurement at 25°C. Obtaining the specific conductance at a stream allows the sampler to measure for the concentration of dissolved solids during each investigation. Conditions that will affect the specific conductance of a stream include pollution, precipitation, absorption, ion exchange, oxidation, and reduction.

A reliable conductivity meter will be used to measure specific conductance. Care will be exercised to assure correct meter calibration and decontamination measures are followed before each investigation.

pH

During each sampling event, a pH measurement will be recorded. Hydrolysis of salts control pH and is reflected in a stream system either as strong bases or weak acids or vice versa. pH is recorded on a scale of 0 to 14 with any reading below a seven described as acidic, and any reading above a

seven described as alkaline. Once the sample is obtained, the pH reading will be analyzed immediately.

Care will be exercised to assure that the pH meter and electrode are properly stored and calibrated before taking measurements.

Dissolved Oxygen

During each sampling event, dissolved oxygen measurement will be recorded in units of milligram per liter (mg/L). Dissolved oxygen represents the air and oxygen released from aquatic plants during the process of photosynthesis. Dissolved oxygen is affected by the pressure of oxygen in the air, temperature of the water and mineral content of the water. In order to obtain a dissolved oxygen reading, an electronic dissolved oxygen meter will be utilized. This meter works by consuming gases through a membrane in the electrode and converting those gases, specifically oxygen, into a current that can be converted into a concentration. Care will be exercised to assure that the dissolved oxygen meter is well maintained and correctly calibrated before field measurements are obtained. The samples will be obtained away from stagnant areas and away from rapids.

3.5 Analytical Parameters

For this Sampling and Analysis Plan, in addition to field measurements, all surface water samples will be analyzed for the facility COCs.

3.6 Sample Collection

3.6.1 Sample Containers

Sample container types and volume are selected according to EPA SW-846 standards and by the analytical laboratory's specific requirements.

3.6.2 Sample Recording Methods

Each sample container will be clearly marked with project, date, time, sample number, name of collector, parameter to be analyzed and the preservative used if applicable. The following information will be recorded in the logbook and Chain-of-Custody:

- Project name
- Date
- Sample number
- Location
- Sampling personnel
- Sample time

3.7 Monitoring Frequency and Reporting

The three surface water sample locations (S-1, S-2, and S-3) shall be monitored on a semiannual basis for the COCs. The analytical results of each surface water sampling event will be reported with the corresponding Corrective Action Site Evaluation.

Sampling locations which do not contain a sufficient water column within which to sample will not be required to be re-sampled during the compliance period.

4.0 STATISTICAL EVALUATION

Constituents-of-concern detected in the samples collected from the sentinel location(s) shall be compared to the GPS established for the facility using one of the following methods. If the GPS is derived from facility background concentrations, then the data must be compared directly to GPS using a value-to-value comparison. If the established GPS is derived from a DEQ-established Alternate Concentration Limit (ACL) or EPA-established Maximum Contaminant Level (MCL), then the monitoring data may be compared to the GPS statistically and/or using a value-to-value procedure.

The comparison will initially be performed using a value-to-value procedure. If a suspect GPS exceedance is noted during the value-to-value comparison, a confirmation sample may be collected. The results from the confirmation sample will be compared to the GPS in a value-to-value comparison. If the comparison indicates a GPS exceedance, the source of the GPS will be determined. If the GPS is derived from an ACL or MCL, Prince Edward County may elect to collect three additional samples for the suspect constituent(s) in order to perform a statistical comparison to the GPS.

To perform a statistical comparison, a minimum of four samples must be collected. Once data have been received for the samples, a lower confidence limit should be calculated and compared to the GPS. The lower limit should be calculated initially by using a 95% confidence level. The procedure for evaluating the data is as follows:

- Calculate the mean, x, of the four samples;
- Calculate the standard deviation of the sample;
- Determine the critical value, t_c, for a confidence level of 90% (5% on each tail) and degrees of freedom, d.f. = n-1;
- Calculate E, where E = (t_c)*(s / (n)^0.5);
- Calculate the lower 5% Confidence Interval, $L_{0.05}CI$, where $L_{0.05}CI$ = (x – E); and,
- Compare the $L_{0.05}CI$ to the GPS.

If the $L_{0.05}CI$ is less than the GPS, there is no statistically significant increase in the mean of the data. If the lower limit exceeds the GPS, the DEQ may be contacted regarding the use of a confidence level greater than 95%.

5.0 REMEDY PERFORMANCE EVALUATION

Performance evaluation of the MNA and LTP site remedies will be based on trend evaluations of contaminant concentrations, MNA parameters, plume mass, and plume areal extent. Data obtained

from the corrective action wells will be used to annually re-evaluate the risk posed by the residual plume. In the event that contaminant concentrations in the sentinel well(s) exceed GPS and are confirmed by confirmation sampling within 30 days, Prince Edward County will determine the horizontal and vertical extent of the plume of contamination for constituents at statistically significant levels exceeding background concentrations.

In the event that risk to human health or the environment is unacceptable, then alternative remedial methods as discussed in the ACM and CAP will be implemented. Once contaminant concentrations in the well(s) of concern are below established GPS, then this portion of the remedy will be complete.

The MNA and LTP remedies will be evaluated based on analytical results obtained from the background wells and the GPS-exceeding compliance wells and their associated performance and sentinel wells. Data obtained from these wells will undergo statistical trend analysis to evaluate the effectiveness of the remedies.

Additionally, an evaluation of the analytical results for the semiannual monitoring of the sentinel wells will be performed. Analytical results obtained from the routine monitoring of the sentinel wells will be used to determine if constituents-of-concern may be present off site in concentrations that exceed GPS. The analytical results will be compared to the GPS using a value-to-value comparison method or a statistical comparison method as detailed in Section 4.0.

If constituent-of-concern concentrations are observed to show no impact over background in sentinel wells, no action will be required, and the routine compliance and corrective action monitoring will continue until the remedial objective is achieved and the Corrective Action Program is suspended. For organic constituents, no impact means concentrations less than the laboratory limit of detection (LOD). If a sentinel well is impacted over background, the well should be replaced or justification as to why this is not necessary to delineate the contaminate plume should be submitted to the DEQ for approval.

If the facility determines, based on information developed after implementation of the remedy, or if the CASE reports show that, over a sufficient amount of time, the selected remedy cannot meet the requirements of the VSWMR, the facility shall implement interim measures as outlined in the CAP, and/or other remedial methods or techniques as outlined in the facility's ACM or as directed by DEQ.

If the facility determines that GPS cannot be practically achieved with any currently available methods, the facility shall, within 90 days of recognizing that condition:

1. Submit a report that demonstrates compliance with the GPS cannot be practically achieved with any currently available groundwater remedial methods;
2. Upon receiving DEQ approval, implement alternate measures to control exposure of HHE to residual contamination that will remain as a result of termination of remedial actions, as necessary to protect HHE;
3. Implement alternate measures for removal or decontamination of any remediation-related equipment, units, devices or structures that are:
    a. Technically practicable; and,
    b. Consistent with the overall objective of the remedy
4. Within 14 days prior to implementing the alternate measure(s), submit a request for approval to DEQ describing and justifying the alternate measures(s) to be applied.

If the comparison indicates that the concentrations of the constituents-of-concern have been reduced to less than the GPS, the permit will be modified to incorporate the alternative remedy. Additionally, the MNA and LTP remedies will be reevaluated to determine if it is appropriate to continue the remedies at the facility alongside the alternative remedy or discontinue the MNA and LTP remedies.

If the comparison indicates that the constituents-of-concern are still present at concentrations that exceed the GPS, sampling of the affected sentinel well(s) will be conducted until the constituent-of-concern concentrations are below the GPS. If, after five alternative remedy monitoring events, the constituents-of-concern are still present at concentrations that exceed the GPS, a re-evaluation of the alternative remedy and an appropriate adjustment or alteration of the remedy will be implemented within 90 days of the fifth alternative remedy sampling event. The alternative remedy implementation and confirmation sampling will continue as specified above until the constituent-of-concern concentrations decrease to less than the GPS in the affected area(s) of concern, unless the County is otherwise directed by DEQ.

6.0 CORRECTIVE ACTION PROGRAM REPORTING

The performance criteria for the MNA and LTP remedies will be evaluated every 3 years and the evaluation results will be presented to the DEQ in a Corrective Action Site Evaluation (CASE) Report, due every three years on the anniversary date of the CAP permit amendment. The CASE Report will provide recommended modifications to the CAP, if appropriate.

The CASE Reports will be available for public review at the following public data repositories:

Virginia Department of Environmental Quality Piedmont Regional Office 4949-A Cox Rd. Glen Allen, Virginia 23060	Contact: Christopher Keehan Solid Waste Permit Writer/ Groundwater Remediation Specialist 804-527-5020
Farmville-Prince Edward Community Library 1303 West 3rd Street Farmville, VA 23901	Contact: Sarah Puckett Assistant County Administrator 434-392-4024

In the event that a suspect GPS exceedance is identified in one or more sentinel monitoring samples based on routine remedy monitoring results pursuant to the CAMP, Prince Edward County will notify the DEQ in writing of:

- the suspected exceedance within 44 days of the date on the laboratory certificates-of-analysis; and,
- Prince Edward County's intended course of action to address the suspect GPS exceedance.

Prince Edward County may choose to conduct a confirmation sampling event within 30 days of the date on the laboratory certificates-of-analysis if the laboratory data are suspected to be inaccurate. Alternatively, Prince Edward County may implement an appropriate alternative remedy contingent upon DEQ approval.

If Prince Edward County elects to perform a confirmation sampling event, the County will notify the DEQ in writing of the sampling results within 44 days of the date on the laboratory certificates-of-analysis for the initial sample. If the initial results are confirmed, the notification will identify future actions that Prince Edward County intends to implement. Possible actions are:

- Collection of additional samples as required to perform a statistical comparison of the analytical results to the GPS in accordance with the procedures in Section 3.0; or
- A plan of action for implementing an alternative remedy to address the GPS exceedance.

If the initial results are confirmed by the confirmation sampling event and Prince Edward County elects to perform a statistical comparison to the GPS, Prince Edward County will collect the required three additional samples. Results of the statistical comparison will be submitted in writing to DEQ within 14 days of the date on the laboratory certificates-of-analysis for the final sample collected for the statistical comparison. It should be noted that statistical comparison to the GPS is not applicable for a constituent with a background-based GPS.

If the suspect GPS exceedance is refuted by the statistical comparison, the notification will present this finding and inform the DEQ of the County's intent to continue the routine remedy monitoring program presented in the CAMP.

If the suspected GPS exceedance is confirmed by the statistical comparison, the notification will present this finding and inform the DEQ of the County's intent to expand the monitoring network or implement an alternative remedy within 90 days of the date of the confirmation notification and DEQ approval of the alternative remedy.

After the remedial objectives of the CAP have been obtained for the required time period, Prince Edward County will submit a Corrective Action Completion Report (CACR) to the DEQ. Upon approval from the Director, Prince Edward County will be released from corrective action monitoring in accordance with 9VAC20-81-260.H. Compliance monitoring will continue under the Assessment Monitoring Program, as defined in the facility's Groundwater Monitoring Plan.

7.0 REFERENCES

Department of Environmental Quality (DEQ). 2003a. Submission Instructions No. 12: Groundwater Monitoring and Sampling & Analysis Plans for Existing Regulated Sanitary Landfills. Richmond, VA: Office of Waste Permitting.

DEQ. 2003b. Data Analysis Guidelines for Solid Waste Facilities (DRAFT), Office of Waste Programs, Richmond, V. A.

DEQ. 2003c. Submission Instructions No. 17: Design of a Corrective Action Plan (CAP) Concerning Groundwater Contamination at Regulated Sanitary, CDD, and Industrial Landfills. Richmond, VA: Office of Waste Permitting.

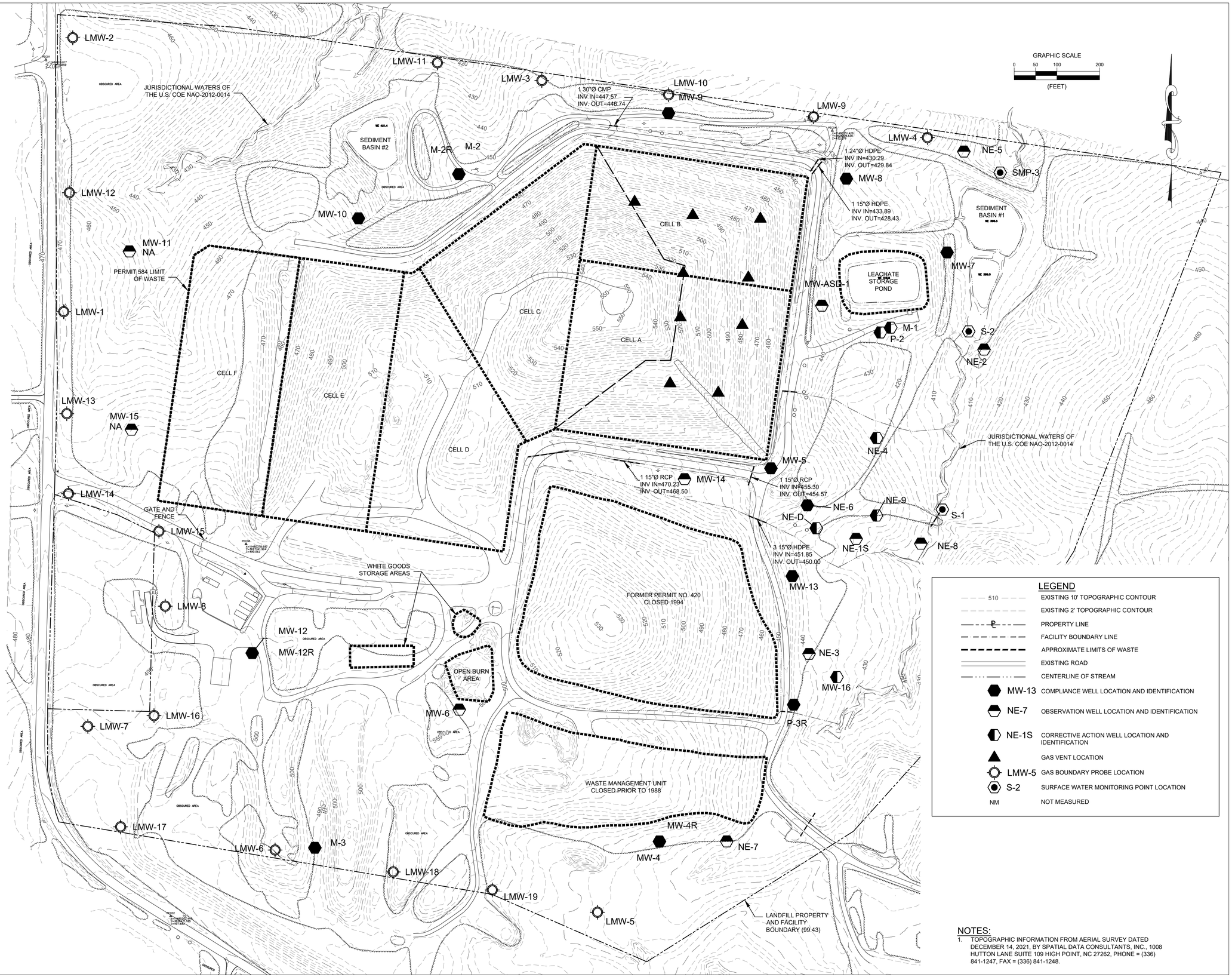
DEQ. 2004. Submission Instructions No. 21: Groundwater Monitoring Programs at Regulated Landfill Undergoing Monitored Natural Attenuation (MNA)-Based Corrective Action. Richmond, VA: Office of Waste Permitting.

Environmental Protection Agency (EPA). 1998. Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water. Washington, D.C.: Office of Research and Development; EPA/600/R-98/128.

EPA. 2004. Performance Monitoring of MNA Remedies for VOCs in Ground Water. Cincinnati, O.H.: National Risk Management Research Laboratories; Office of Research and Development; EPA/600/R-04/027.

EPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities; Unified Guidance. Office of Resource Conservation and Recovery, Program Implementation and Information Division, EPA 530-R-09-007.

DRAWING



LEGEND

510	EXISTING 10' TOPOGRAPHIC CONTOUR
	EXISTING 2' TOPOGRAPHIC CONTOUR
℄	PROPERTY LINE
	FACILITY BOUNDARY LINE
	APPROXIMATE LIMITS OF WASTE
	EXISTING ROAD
	CENTERLINE OF STREAM
MW-13	COMPLIANCE WELL LOCATION AND IDENTIFICATION
NE-7	OBSERVATION WELL LOCATION AND IDENTIFICATION
NE-1S	CORRECTIVE ACTION WELL LOCATION AND IDENTIFICATION
▲	GAS VENT LOCATION
LMW-5	GAS BOUNDARY PROBE LOCATION
S-2	SURFACE WATER MONITORING POINT LOCATION
NM	NOT MEASURED

NOTES:

1. TOPOGRAPHIC INFORMATION FROM AERIAL SURVEY DATED DECEMBER 14, 2021, BY SPATIAL DATA CONSULTANTS, INC., 1008 HUTTON LANE SUITE 109 HIGH POINT, NC 27262, PHONE = (336) 841-1247, FAX = (336) 841-1248.

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NOT FOR CONSTRUCTION

Prince Edward County
111 N South Street, Farmville, Virginia 23901

Prince Edward Sanitary Landfill
130 Trashmore Road, Farmville, Virginia 23901

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2220095
DRAWN BY: JRS
REVIEWED BY: HAE
ISSUED FOR: REPORT
DATE: 11/16/2022
DRAWING NAME:

CORRECTIVE ACTION PLAN PERMIT NO. 584

DRAWING NUMBER: 1

VERSION 19.0
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